The Great Carbohydrate Crisis

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Arthur Pendelton took pride in exactly two things, and he had ranked them in order of importance more than once: first, his Kentucky Bluegrass lawn; second, his total avoidance of anything even remotely unusual. The lawn was not merely a lawn. It was a 2,400-square-foot monument to discipline, fertilized on a rotating seventeen-day schedule, aerated every spring with the precision of a military campaign, and mowed at a blade height of three-and-a-quarter inches — not three, not three and a half, but three-and-a-quarter, which Arthur had determined, through exhaustive research and one regrettable summer of experimentation, was the optimal height for simultaneously suppressing crabgrass and projecting an aura of quiet dominance over the rest of Marigold Lane.

He had a laminated card in his garage that listed, by month, the precise NPK ratio of fertilizer to be applied. He had a second laminated card that tracked rainfall totals and when irrigation cycles needed adjusting. He had a third laminated card that was simply a map of the lawn with zones labeled A through F, each zone color-coded by sun exposure. His neighbor, Gary, had once suggested Arthur might enjoy golf. Arthur had not spoken to Gary since.

It was a quiet Tuesday evening in mid-September — prime season for overseeding the thin patch near Zone D — when Arthur looked out his bay window and saw them.

Thirty-two domestic white ducks. Sitting in a perfect geometric grid on his front yard.

He stood there for a full four seconds, which was longer than Arthur Pendelton had ever stood still without purpose in his adult life. He was not frightened. He was not bewildered. He felt something far more specific and personal: the cold, crystalline fury of a man watching eight pounds of webbed-footed waterfowl per square duck compress his freshly aerated Kentucky Bluegrass.

Arthur grabbed his trusty straw broom, marched out his front door, and prepared to defend his turf. He moved with the grim, purposeful energy of a man who had once filed a formal noise complaint against a wind chime.

"Shoo! Go on, get back to the park!" he yelled, waving the broom in a firm, controlled arc. He'd read that erratic movements startled birds. He was not going to be erratic. He was going to be decisive.

The ducks did not scatter. They didn't even flinch. Instead, thirty-two pristine white heads turned in perfect unison, their dark, beady eyes locking onto Arthur with an attentiveness that no animal had ever aimed at him — not even his ex-wife during the Great Lawn Sprinkler Disagreement of 2019.

Then, the lead duck let out a single, resonant *quack*.

Instantly, a column of shimmering, aquamarine light descended from the cloudless sky. It didn't look like a standard sci-fi tractor beam; it looked entirely like a cascading waterfall that defied gravity, which Arthur found irritating because it was also, aesthetically speaking, quite beautiful, and he resented finding anything beautiful at this particular moment.

Before Arthur could even drop his broom, the light engulfed him. He felt a sudden sensation of dampness, the distinct smell of pond water and ozone, and then — as a final insult — he had just enough time to glance at his lawn and see that two of the ducks had left small, oval depressions in Zone C before the world went black.

Aboard the Feathered Ascendancy

Arthur awoke on a surface that felt suspiciously like a giant, synthetic lily pad. He sat up, rubbing his eyes, and immediately conducted a damage assessment of himself: no injuries, no missing limbs, broom still in hand. He then — because Arthur was Arthur — checked his watch to calculate how long the grass had been left unattended.

He was in a massive, dome-shaped room constructed of gleaming white metal. In the center was a tranquil, perfectly circular pond with water so still it looked like liquid mercury. The air smelled faintly of corn and fresh water.

Surrounding the pond were the ducks.

They were indistinguishable from the ducks at the local municipal park — orange bills, webbed feet, snowy white feathers — except for the glowing, metallic collars fastened around their necks, and also the fact that they were standing in neat, disciplined rows that Arthur grudgingly admitted were more organized than most things he'd ever seen.

The lead duck waddled forward. Its gait was just as clumsy and comical as any Earth duck's — a side-to-side wobble that looked like it had been designed by someone who'd heard about walking but never quite seen it done — but when it opened its bill to quack, a crisp, British-accented voice emanated from its collar with the gravity of a head of state addressing Parliament.

"Greetings, Earthling Arthur. I am High Commander Waddles of the Anas-Platyrhynchos Empire. You are aboard our flagship, the *Feathered Ascendancy*."

Arthur stared. He looked at his broom. He looked back at the duck. "You're... you're park ducks."

"A common misconception," Commander Waddles replied, ruffling his feathers with the dignity of someone who has been called a park duck for the last time. "Those units you see at the municipal pond are our reconnaissance agents. They have been embedded in

Earth's wetland ecosystems for millennia, feeding intelligence back to the Empire and waiting for the precise moment to make contact."

"Millennia?" Arthur said. "You've been spying on us for *millennia*, and the intelligence you've gathered led you to *me*?"

"Why you?" Arthur stammered, gripping his broom like a sword, or possibly a garden implement he was deeply attached to. "I don't even like ducks!"

"Precisely," Waddles said, pacing back and forth on his flat, orange feet with the measured stride of a general reviewing maps. "You do not like us. You have never once thrown us a piece of bread. You do not find us charming. This is, in fact, your most attractive quality."

"I find that extremely hard to believe," Arthur said.

"More importantly," Waddles continued, "you do not feed us *garbage*."

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Another duck, wearing a collar that glowed with a faint blue light and what appeared to be a tiny laminated badge that read IMPERIAL SCIENCE DIVISION, waddled up beside the Commander with the energy of a researcher who had been waiting a long time to explain something important to someone who would actually listen.

"Allow me to explain," the collar translated in a smooth, robotic tone that somehow also managed to convey deep personal grievance. "Our warp drives are fueled by complex carbohydrates. For centuries, our scouts on Earth have been sustained by the natural flora of your wetlands — pondweed, aquatic invertebrates, small crustaceans. A balanced, isotopically rich diet that kept our communication relays powered and our agents in peak operational condition."

"The White Bread Epidemic," Commander Waddles interrupted, shaking his head mournfully in the manner of someone recounting a great tragedy that was also, somehow, deeply stupid. "Your species began arriving at our pond stations with plastic bags filled with heavily processed, nutritionally vacant white bread. Enriched flour. Sixty milligrams of sodium per slice. A glycemic index of 75. These people believe they are performing an act of kindness."

He paused. His beady eyes conveyed centuries of suffering.

"They are not performing an act of kindness."

"The digestive tracts of our field agents," the science-duck continued, pulling up a holographic display that showed what appeared to be a very unhappy duck intestine rendered in three dimensions, "have been compromised by an overabundance of simple

sugars and insufficient fiber. The isotopic energy yield has dropped forty-three percent. Our communication relays are flickering. Two deep-cover agents near the Minnehaha Creek station have developed something our physicians are calling Bread Bloat, which is exactly what it sounds like and is not dignified for an officer of the Empire."

Arthur blinked, trying to process the absurdity of the situation. "So... you abducted me because of bread."

"We intercepted your search history," the science-duck continued, tapping her beak against the holographic display to advance a slide. The slide read: SUBJECT 7,441-A: ARTISANAL BAKER, LAWN OBSESSIVE, THREAT LEVEL: ZERO, SOURDOUGH EXPERTISE: HIGH. "Your recent inquiries into '90-hour fermented sourdough starters,' 'ancient grain hydration ratios,' and — we particularly noted this one — 'why is my crumb structure too dense even with 78% hydration' triggered our deep-space algorithms. You are, according to our analysis, the foremost amateur sourdough practitioner within a forty-mile radius."

"That's... actually somewhat accurate," Arthur admitted, despite himself.

"We require your expertise," Waddles said. "You will teach our bio-engineers to cultivate a galactic-scale sourdough starter capable of providing sustained isotopic fuel for a fleet of twelve hundred ships. In exchange, we will return you to your domicile unharmed."

"And if I refuse?"

"We will be forced to vaporize your planet and harvest its wheat fields by force," Waddles said, in the tone of someone who had rehearsed this line and found it distasteful. "It would be a messy affair. Enormous collateral damage. The paperwork alone would take decades. We strongly prefer the diplomatic approach."

Arthur thought about this for a moment. He thought about his lawn. He thought about Zone D's thin patch. He thought about the fact that vaporization would almost certainly be bad for the grass.

"Fine," he said. "But I'm going to need a kitchen scale. I don't measure flour by volume. That's how you get inconsistency."

Commander Waddles blinked. "Our civilization has crossed four star systems. We have a kitchen scale."

The Galactic Bakery

For the next four hours, Arthur found himself standing in a high-tech, stainless-steel laboratory that smelled unexpectedly of warm grain, giving a masterclass on yeast fermentation to a flock of highly attentive waterfowl. It was, he would later reflect, the most focused audience he had ever had. When he taught his neighbor's kid how to mow

in diagonal stripes, the kid had checked his phone fourteen times. These ducks had not once looked away.

He started from the beginning. The wild yeast. The lactic acid bacteria. The delicate microbial ecosystem inside a mature starter that made the whole enterprise work, and the way most people killed it through impatience, overfeeding, or using tap water with too much chlorine.

"Chlorine kills the culture?" the science-duck said, her beak hovering over the holographic notepad.

"Tap water," Arthur confirmed. "Filtered or left out overnight. The chlorine dissipates. This is not optional."

There was a brief, horrified silence in the lab. Several ducks exchanged glances with the haunted expressions of engineers who had just identified the source of a catastrophic systems failure. Commander Waddles said something in rapid, untranslated quacking that caused four ducks to waddle away at speed toward what appeared to be a very large tap.

Arthur showed them how to measure flour by weight. He demonstrated the stretch-and-fold technique, watching in surreal disbelief as robotic appendages descended from the ceiling to mimic his hand movements, kneading massive vats of dough that were, by his rough estimate, large enough to fill his garage. The ducks quacked their approval in what he was beginning to recognize as an admiring register.

"Your hands," Commander Waddles observed, "understand the gluten network with an intuitive precision that our sensors can only approximate. This is remarkable, given that you use them primarily to grip lawn implements."

"I have good hands," Arthur said, in a tone that did not invite further commentary.

He talked them through the autolyse. The windowpane test. The importance of ambient temperature — "if your kitchen is below 68 degrees, the fermentation slows, and you need to adjust your timeline accordingly, otherwise you're just guessing, and I don't guess" — and the science-duck translated all of this into something she called isotopic fermentation modeling, filling screen after screen with equations that Arthur didn't understand but which seemed to make her increasingly excited in the way that only a scientist who has been waiting a long time for a breakthrough can be excited.

"Fascinating," Commander Waddles muttered, watching the dough rise in a hyper-accelerated proofing chamber that compressed eight hours into forty minutes. "The symbiotic relationship of the wild yeast and lactic acid bacteria — it's a perfect bio-reactor. Decentralized. Self-regulating. Resilient under varying atmospheric pressures." He looked at Arthur with something approaching awe. "How did your species discover this?"

"Someone left flour and water sitting out too long," Arthur said, "and then instead of throwing it away, a lunatic baked it. This is how most human achievements happen."

Commander Waddles appeared to be writing this down.

"Just make sure you score the top before it goes in the oven," Arthur said, miming a slashing motion over the proofed loaf. "Four cuts at a forty-five degree angle, confident, no hesitation. If you score too shallow, the bread tears where it wants to. If you score too deep, you deflate it. You get one chance. Make it count."

There was a brief, reverent silence.

"Noted," the science-duck said, tapping the holographic console with her beak in what Arthur now recognized as rapid, focused notation. "Scoring geometry entered into the Imperial Baking Standard, Subsection 7, Paragraph 3."

"You have an Imperial Baking Standard?"

"We do now," Waddles said.

The Return

Once the first batch of golden, crusty sourdough emerged from the thermal synthesis ovens — filling the dome with a smell so good that Arthur actually forgot, for approximately fifteen seconds, that he was on an alien spacecraft surrounded by waterfowl — the ducks lost all composure.

They broke into a chaotic chorus of joyful quacking, entirely forgetting their translators as they fluttered around the lab in a celebratory frenzy that knocked over two holographic displays and sent one junior officer skidding beak-first across the floor on a patch of spilled hydration water. It was, against all odds, charming.

"Arthur Pendelton," Commander Waddles proclaimed, composing himself with visible effort and standing as tall as a duck can stand, which is not very tall but was somehow impressive, "you have saved the Anas-Platyrhynchos Empire. Our fleet will fly. Our agents will be restored to full operational health. Your contribution to galactic history will be recorded in the Nest Archives and recited at every Molt Ceremony from this point forward."

He bowed his feathered head.

"Your name will be sung in the nesting grounds of our homeworld. We shall return you to your domicile at once."

"The grass," Arthur said. "I was overseeding tonight. Zone D has a thin patch. I was going to use a perennial rye blend."

"We are aware of Zone D," Commander Waddles said. "Our scouts have filed detailed terrain reports on your property for eleven consecutive years. We have flagged the shade situation along the northern border as a contributing factor. You may wish to consider a fine fescue blend for increased shade tolerance."

Arthur stared at him.

"The aquamarine transport will return you in moments," Waddles said, gesturing with one wing.

The tractor-waterfall materialized beneath Arthur's feet, shimmering and absurd and beautiful.

"Wait!" Arthur called out as he began to dissolve into light. "What do I do if I see your scouts at the park? How do I — how do I tell them apart from regular ducks?"

"You cannot," Waddles replied. "They are perfect." A pause. "But they will know you. They've read the terrain reports."

"And if I want to — to, I don't know, check in. Is there a way to—"

"Throw frozen peas," Waddles shouted as the beam engaged in full. "They are rich in vitamins, excellent for plumage, and our agents are instructed to quack twice in response if the message has been received. It is our version of a diplomatic channel. Do not throw bread. Under any circumstances. Not even once."

"NOT EVEN ARTISANAL BREAD?" Arthur shouted, but the light had already taken him.

Zone D

Arthur woke up face-down on his Kentucky Bluegrass lawn. The sun was just beginning to rise, casting a golden hue over his perfectly manicured yard. His broom was resting neatly by his side. Zone D's thin patch looked slightly better than he remembered, which he chose not to examine too closely.

He sat up groggily and conducted his standard morning assessment. Grass: intact. Edges: sharp. Aeration holes from last week: still visible, still appropriate. The ducks, the *Feathered Ascendancy*, the aquamarine light — all gone. He half-convinced himself it had been a bizarre, bread-induced fever dream of the kind that visited obsessive home bakers from time to time.

That was, until he looked at his front porch.

Resting squarely on his welcome mat was a single, perfectly smooth egg made of solid gold, and beside it, a freshly baked loaf of sourdough that smelled absolutely out of this world — the crust shatteringly crisp, the crumb open and glossy and honeyed, scored in four cuts at a precise forty-five-degree angle.

The scoring, he had to admit, was flawless.

He picked up the loaf, carried it inside, and cut himself a slice while the coffee brewed. He stood at his kitchen window overlooking his lawn. In Zone D, near the thin patch, there was a single small indent — perfectly oval, the size of a duck's foot — pressed with what appeared to be deliberate care into the center of the struggling grass, like a signature.

Arthur sipped his coffee.

He put a bag of frozen peas in his jacket pocket.

He went to work.